

Reply To Examiner's Remarks

Claims 1-52, as amended, are pending for consideration.

The Examiner rejects claims 1-52 under 35 U.S.C. §112, first paragraph and second paragraph, as containing subject matter that was not described in the specification. More specifically, the Examiner asserts that the language in claims 1, 10, 18, 27, 35 and 44 that refers to a "universal data interface . . . and to provide automatic data format recognition" is not adequately supported by the discussions in the specification (page 9, line 17, through page 13, line 5). A universal data interface ("45" in the text and in Figure 1) that provides automatic data format recognition, in a manner similar to what is required in the invention, is disclosed in each of the following U.S. Patents, each of which is submitted with this Amendment And Response in a Supplementary Information Disclosure Statement: No. 5,025,412, issued to Dalrymple et al on 16 June 1991; No. 5,264,958, issued to Johnson on 23 November 1993; No. 5,265,252, issued to Rawson et al on 23 November 1993; No. 5,371,736, issued to Evan on 6 December 1994; No. 5,485,460, issued to Schrier et al on 16 January 1996; No. 5,548,510, issued to Ebert on 20 August 1996 and filed on 28 October 1994; No. 5,619,499, issued to Nakabayashi on 8 April 1997 and filed on 12 May 1995; No. 5,634,015, issued to Chang et al on 27 May 1997 and filed on 4 October 1994, 5,640,444, issued to O'Sullivan on 17 June 1997 and filed on 3 October 1994; No. 5,644,790, issued to Li et al on 1 July 1997 and filed on 16 February 1994; and 5,680,551, issued to Martino on 21 October 1997 and filed on 31 January 1996. The Applicants believe that these published patents, collectively or individually, adequately disclose a data interface of a type that could be used to implement the invention.

TDS
see

The Examiner rejects claims 1-34 under 35 U.S.C. §102(e) as anticipated by disclosures contained in U.S. Patent No. 5,557,541, issued to Schulhof et al. The Examiner also rejects claims 1-52 under 35 U.S.C. §103(a) as obvious in view of disclosures contained in the Schulhof et al patent. The Schulhof et al patent cited and applied by the Examiner discloses apparatus for distributing

subscription and on-demand audio programming. The apparatus includes a portable audio recording and playback device that is programmable from a high speed download system. The portable device includes (1) a high capacity, high density (e.g., 10 Mbyte) data storage medium, (2) a base control interface for accepting audio program material (for which the format is already known), (3) a mobile control interface for displaying the identity of the recorded material, (4) a recording mechanism for accepting high speed digital data from an external source (again, once the data format is already known) at a rate faster than real time, and (5) an audio material playback mechanism for retrieving a selected audio item from the storage medium, and for converting the material into audio signals for playback through an audio amplifier. The Schulhof et al patent also discloses (i) use of cable television for audio material transfer, (ii) digitization of the data before transfer, (iii) use of error detection and correction coding (e.g., the RSA algorithm), (iv) use of a 100:1 compression ratio for data transfer, (v) use of data encryption for the transferred data, and (vi) distinction between audio bandwidth requirements for speech and for music in the transfer.

Claim 1, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive a data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for processing this data file; (2) a microprocessor, programmed to receive and use the data format recognition information to implement a correct communications protocol to receive and extract the data file from the incoming signal, where the data file is received by the microprocessor at a transfer rate that is at least two times the transfer rate for audibly perceptible playback of information contained in the data file; (3) diskette recording means, connected to the microprocessor, for receiving a removable diskette, for receiving the data file extracted by the microprocessor, and for recording this data file in a compressed format on the removable diskette; (4) playback means for receiving the removable diskette and for selecting and decompressing at least one selected data

file recorded on this diskette; and (5) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected data file and for reproducing the selected data file in audibly perceptible form for playback at a real time delivery rate.

Provision (1) of a universal data interface and (2) of a microprocessor programmed to implement a correct communications protocol for the incoming data signals, which allows automatic recognition of the proper format to receive and process a digitized incoming signal, without requiring specification of the appropriate format, is not disclosed or suggested in the disclosures of the Schulhof et al patent. In the Schulhof et al patent it appears to be tacitly assumed that the appropriate format of the incoming digital signal is already known so that interrogation and analysis of the incoming signal to determine the appropriate format is not necessary. It would not have been obvious to provide a data interface that recognizes and processes data signals according to the (unknown) data signal format, because the Schulhof et al patent deals only with what appears to be a known data format.

In the specification and claims of the subject patent application, the incoming digitized data signal may have any one of a number of formats. Processing of the incoming data signal requires use of a definite protocol to receive and analyze the incoming signal, whether the signal is transferred in packets, frames, ATM cells or whatever. In part, this arises from the recognition that, if audio files from an audio library are randomly selected and transferred, the transferred audio files may have two or more differing formats and require use of different protocols to receive and analyze each of these transferred audio files. Recognition of this feature is lacking in, and is not suggested by, the disclosures of the Schulhof et al patent. For these reasons, the Applicants submit that claim 1 is patentable over, and is neither anticipated by nor made obvious in view of, the disclosures of the Schulhof et al patent.

Claim 3, dependent on claim 1, of the subject application further recites that the universal data interface includes a data input/output buffer adapted for

connection to at least one of a class of data communications links recited in claim 3: a conventional telephone line, an ISDN line, a digital broadcast satellite link, a two-way interactive cable television link, and an on-line link to a computer. The Schulhof et al patent does not disclose or anticipate provision of a universal data interface and a fortiori does not disclose or anticipate provision of a universal data interface with a data buffer connected to one or more of the five types of communications links set forth in claim 3.

Claim 8, dependent on claim 1, of the subject application further recites that the incoming signal is received as digitized text and that at least one of the microprocessor and/or the playback means includes a text-to-speech converter. The Schulhof et al patent does not disclose or anticipate provision of a text-to-speech converter to convert and present digitized text as audible speech. The Schulhof et al patent appears to contemplate receipt of incoming audio signals, which are already in a form suitable for audio playback. Claim 8 of the subject application goes beyond receipt of only audio material and also provides for receipt, conversion and playback of information that is present as text, which requires conversion before the incoming signal can be played back as audio data. It would not have been obvious, from the disclosures of the Schulhof et al patent, to provide for receipt of text material, requiring conversion, as well as for receipt of audio material.

Claim 9, dependent on claim 1, of the subject application further recites that the playback means includes an audibly perceptible or visually perceptible display that displays user information, where this user information is drawn from the groups of user information consisting of: (1) an estimated length of time required for real time playback of a user-specified selection recorded on a removable diskette; (2) a title or phrase describing a user-specified selection recorded on a removable diskette; and (3) a user-specified category to which a user-specified selection recorded on a removable diskette is assigned. The Schulhof et al patent does not disclose or anticipate inclusion of such an audibly perceptible or visually perceptible display, and it would not have been obvious,

from the disclosures of the Schulhof et al patent, to provide for such a display. The visual display (79 in Figure 4) discussed at column 13, lines 5-7, of the Schulhof et al patent, displays only the "identity" of the recorded material that can be selected for playback. This appears to refer to a name or title assigned to the recorded material, not to estimated length of time required for real time playback, and not to a user-specified category for a selection. It would not have been obvious, from the disclosures in the Schulhof et al patent, to provide an audibly perceptible display or visually perceptible display for user information drawn from the groups (1), (2) and (3) set forth above. (4)

Claim 10, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive a text data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for this text data file; (2) a microprocessor, programmed to receive and use the text data format recognition information to implement a correct communications protocol to receive and extract the text data file from the incoming signal, where the text data file is received by the microprocessor at a transfer rate that is at least two times the transfer rate for normal, audibly perceptible playback of information contained in the text data file; (3) diskette recording means, connected to the microprocessor, for receiving a removable diskette, for receiving the text data file extracted by the microprocessor, and for recording this text data file in a compressed format on the removable diskette; (4) text-to-speech conversion means for receiving the removable diskette upon which at least one text data file is recorded and for converting a text data file to an output signal that is in audio format; (5) playback means for receiving the text-to-speech conversion means output signal and for selecting and decompressing at least one selected data file recorded on this diskette; and (6) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected text data file and for reproducing the selected text data file in audibly perceptible form for playback at a real time delivery rate.

As asserted in the preceding arguments, the Schulhof et al patent does not disclose and does not make obvious provision (1) of a universal data interface and (2) of a microprocessor programmed to implement a correct communications protocol for the incoming text signals, which allows automatic recognition of the proper format to receive and process a digitized incoming signal, without requiring specification of the appropriate format, (4) of a text-to-speech conversion means for receiving and converting the (text) material on a removable diskette; (5) of playback means for receiving the text-to-speech conversion means output signal and for selecting and decompressing at least one selected data file recorded on this diskette. These features are not disclosed or suggested in the disclosures of the Schulhof et al patent and are not made obvious by these disclosures.

Claims 12 and 17, dependent upon claim 10, are analogous to claims 3 and 9, respectively, and are believed to be patentable over the disclosures of the Schulhof et al patent, for the same reasons that claims 3 and 9 are patentable.

Claim 18, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive an audio data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for the audio data file; (2) a microprocessor, programmed to receive and use the audio data format recognition information to implement a correct communications protocol to receive and extract the compressed audio data file from the incoming signal, where the audio data file is received by the microprocessor at a transfer rate that is at least two times the transfer rate for normal, audibly perceptible playback of information contained in the audio data file; (3) diskette recording means, connected to the microprocessor, for receiving a removable diskette, for receiving the audio data file extracted by the microprocessor, and for recording this audio data file in a compressed format on the removable diskette; (4) playback means for receiving the removable diskette and for selecting and decompressing at least one selected audio data file recorded

on this diskette; and (5) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected audio data file and for reproducing the selected audio data file in audibly perceptible form for playback at a real time delivery rate.

Claim 18 is parallel to claim 1 and, for the same reasons as were adduced in discussing claim 1, is believed to be patentable over the disclosures of the Schulhof et al patent. Claims 20 and 26 are parallel to claims 3 and 9, respectively, and are believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons that claims 3 and 9 are patentable.

Claim 27, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive a text data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for this text data file; (2) a microprocessor, programmed to receive and use the text data format recognition information to implement a correct communications protocol to receive and extract the text data file from the incoming signal, where the text data file is received by the microprocessor at a transfer rate that is at least two times the transfer rate for normal, audibly perceptible playback of information contained in the text data file; (3) text-to-speech conversion means, connected to the microprocessor, for receiving a text data file and for converting the text data file to an output signal that is in digitized audio format; (4) audio compression means for receiving the text-to-speech conversion means output signal and for producing an audio data output signal in a compressed audio format; (5) diskette recording means, connected to the audio compression means, for receiving a removable diskette, for receiving the audio data output signal, and for recording this audio data output signal in a compressed format on the removable diskette; (6) playback means for receiving the removable diskette and for selecting and decompressing at least one selected audio data file recorded on this diskette; and (7) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected audio

data file and for reproducing the selected audio data file in audibly perceptible form for playback at a real time delivery rate.

Claim 27 is similar to claim 10 but further recites inclusion of (4) a text-to-speech converter for receiving a text data file and for converting the text data file to an output signal that is in digitized audio format and (5) an audio compression means for receiving the text-to-speech conversion means output signal and for producing an audio data output signal in a compressed audio format. The Schulhof et al patent does not disclose provision of a text-to-speech converter to receive and convert the text data file to an output signal that is in digitized audio format, and a fortiori does not disclose provision of an audio compression means to receive the text-to-speech converter output signal and to produce an audio data output signal in a compressed audio format. The Schulhof et al patent disclosures do not make obvious the provision of a text-to-speech converter nor the provision of an audio compression means, because the Schulhof et al patent does not discuss the possibility of receiving text and converting this text to audibly perceptible signals.

Claim 27 is believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons adduced in support of claim 1, and for the reasons adduced in the immediately preceding discussion. Claims 29 and 34 are parallel to claims 3 and 9, respectively, and are believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons that claims 3 and 9 are patentable.

Claim 35, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive a data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for the data file; (2) a microprocessor, programmed to receive and use the data format recognition information to implement a correct communications protocol to receive and extract the data file from the incoming signal, where the data file is received by the microprocessor at a transfer rate that

is at least two times the transfer rate for audibly perceptible playback of information contained in the data file; (3) data file interrogation means, connected to the microprocessor, for receiving the data file, for examining the data file to determine whether the data file contains at least one E-mail message and, when the data file contains at least one E-mail message, for removing and discarding the E-mail routing information for each E-mail message that is part of the data file, and for retaining the remainder of each E-mail message in the data file; (4) diskette recording means, connected to the data file interrogation means, for receiving a removable diskette, for receiving the data file extracted by the microprocessor and processed by the data file interrogation means, and for recording this data file in a compressed format on the removable diskette; (5) playback means for receiving the removable diskette and for selecting and decompressing at least one selected data file recorded on this diskette; and (6) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected data file and for reproducing the selected data file in audibly perceptible form for playback at a real time delivery rate.

Claim 35 is similar to claim 1 but further recites inclusion of (3) a data file interrogation means, connected to the microprocessor, for receiving the data file, for examining the data file to determine whether the data file contains at least one E-mail message and, when the data file contains at least one E-mail message, for removing and discarding the E-mail routing information for each E-mail message that is part of the data file, and for retaining the remainder of each E-mail message in the data file.

The Schulhof et al patent does not disclose or suggest inclusion of such a data file interrogation means to examine the incoming data, to determine when the incoming data contains at least one E-mail message, for removing and discarding any E-mail message that is present, and for retaining the remainder of the data file. The Schulhof et al disclosures do not make obvious the provision of such a data file interrogation means, because the Schulhof et al patent is not concerned with E-mail messages. The Examiner argues that inclusion of an E-

mail message in the incoming data file would be obvious, once the communication link for the data file is established. However, this communication link is intended to deliver information for ultimate use as an audio file and is collected primarily from data file libraries and from periodicals already available. Nothing in this context suggests inclusion of an E-mail message, which carries usually new information transmitted specially for the recipient. This communication link runs directly between a data file library or other similar provider to the apparatus recited in claim 35, for use in audibly perceptible form by the requestor. Nothing in this context suggests or makes obvious intervention in the communication link by an E-mail message provider. That this communication link might be opened up so that an E-mail message can be included with the data files normally transmitted on the link, does not make (rare) use of this link for transmitting an E-mail message obvious.

Claim 35 is believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons adduced in support of claim 1, and for the reasons adduced in the immediately preceding discussion. Claims 37 and 43 are parallel to claims 3 and 9, respectively, and are believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons that claims 3 and 9 are patentable.

Claim 44, as amended, of the subject patent application recites audio information storage and playback apparatus that includes: (1) a universal data interface to receive a data file as part of an incoming signal, in digitized and compressed format, and to provide automatic data format recognition information for the data file; (2) a microprocessor, programmed to receive and use the data format recognition information to implement a correct communications protocol to receive and extract the data file from the incoming signal, where the data file is received by the microprocessor at a transfer rate that is at least two times the transfer rate for audibly perceptible playback of information contained in the data file; (3) diskette recording means, connected to the microprocessor, for receiving a removable diskette, for receiving the data file

extracted by the microprocessor, and for recording this data file in a compressed format on the removable diskette; (4) data file interrogation means, for receiving the data file from the removable diskette, for examining the data file to determine whether the data file contains at least one E-mail message and, when the data file contains at least one E-mail message, for removing and discarding the E-mail routing information for each E-mail message that is part of the data file, and for retaining the remainder of each E-mail message in the data file; (5) playback means, connected to the data file interrogation means, for receiving all portions of the data file on the removable diskette that are not removed by the data file interrogation means, and for selecting and decompressing at least one selected data file recorded on this diskette; and (6) audio output and conditioning means, connected to the playback means, for selecting and retrieving a selected data file and for reproducing the selected data file in audibly perceptible form for playback at a real time delivery rate.

Claim 44 is similar to claim 35, except that the data file interrogation means is not associated with the microprocessor but is associated with the user's playback means. Association of a data file interrogation means with the audio playback means, in claim 44, is even less obvious than association of a data file interrogation means with the microprocessor, in claim 35, because E-mail messages are in text format and are not normally received and processed by an audio playback means. Thus, association of a data file interrogation means with an audio playback means is not obvious, and claim 44 is patentable over the disclosures of the Schulhof et al patent.

Claim 44 is believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons adduced in support of claim 1 and claim 35, and for the reasons adduced in the immediately preceding discussion. Claims 46 and 52 are parallel to claims 3 and 9, respectively, and are believed to be patentable over the disclosures of the Schulhof et al patent for the same reasons that claims 3 and 9 are patentable.

The Examiner has indicated that the Schulhof et al patent (No. 5,557,541) can be removed for certain purposes as a prior art reference by filing an appropriate showing under 37 C.F.R. §1.132 that the invention disclosed and claimed herein was derived by the named inventors in the Schulhof et al patent. The Applicants submit with this Amendment And Response a Rule 132 Affidavit that is believed to make the required showing.

For the reasons set forth above, claims 1-52, including amended claims 1, 10, 18, 27, 35 and 44, are believed to be patentable over the disclosures of the Schulhof et al patent. The Applicants request that the Examiner pass the application, including claims 1-52 as amended, to issue as a U.S. patent.

Date: 14 January 1998

Respectfully Submitted,

John Schipper
John Schipper

Patent Attorney for Applicants